Lake Parkway Travel Time Analysis

Project Overview
A travel time analysis is being conducted for the I-794/Lake Parkway corridor from the Marquette Interchange to Bay Street. The purpose of the study is to determine travel time impacts associated with modifications to the function of and access to Lake Parkway.

1. Administration

CONSULTANT will establish and monitor project budget, develop invoices and progress reports and provide CONSULTANT staff with management of technical issues for quality completion of project within budget and on schedule.

2. Existing Data Collection

a. Traffic Counts

CONSULTANT will collect most recent available traffic count information in the study area. Daily traffic count data will be provided by DEPARTMENT and City of Milwaukee. Peak hour and directional distribution factors will be calculated from available data.

Deliverable: Map showing available AM, PM and daily traffic data within the study area.

b. Travel Time

CONSULTANT will conduct three floating car travel time runs to collect travel time information along Lake Parkway for the inbound AM and outbound PM movements from the Lake Parkway and Bay Street interchange to following three destinations:

- Downtown east (Clybourn and Milwaukee Street),
- Downtown west, (Clybourn and 6th Street) and
- west of downtown using I-94.

Deliverable: Map showing average inbound AM and outbound PM travel time data.

3. Travel Time Analysis

The SEWRPC travel demand model is assumed to be unavailable during the course of this project. Therefore, a Sketch Routing Tool will be developed to estimate the travel time between the Lake Parkway and Bay Street interchange to three common destinations, downtown Milwaukee east of the Milwaukee River, downtown Milwaukee between I-43 and the Milwaukee River, and points west of downtown using I-94.

a. Develop Sketch Routing Tool

CONSULTANT will develop a GIS-based traffic routing tool to estimate travel times from the Lake Parkway and Bay Street interchange to the three points identified above. The Sketch Routing Tool will include a simplified roadway network within the study area, bounded by Lake Michigan, I-94, Clybourn Street and Bay Street. Daily volumes, available peak hour and directional factors and a simplified travel time delay function will be used to estimate approximate travel times for inbound AM

Reason for Amendment:
The DEPARTMENT has asked for additional work of conducting a travel time analysis along Lake Parkway one Work Order No. 1 Project I.D. 0656-20-04 under Master Contract I.D. 0695-30-34.

Under Section VI. - revised as follows:

ALL SERVICES

Compensation for all Services provided by the CONSULTANT under terms of the WORK ORDER shall be:

A lump sum of ***$224,209.32 (an increase of 49,185.56)***.

Compensation in excess of the total WORK ORDER amount of ***$224,209.32 (an increase of 49,185.56)*** shall not be allowed unless approved by a written WORK ORDER amendment. Compensation for costs incurred as a result of improper performance by the CONSULTANT will not be allowed.

and outbound PM movements in the Lake Parkway study area. Intersection delay will be estimated based on control type, i.e. stop, roundabout, signalized or free-flow.

b. Develop Existing Travel Times

CONSULTANT will use the Sketch Routing Tool to develop an estimate of existing travel times from Lake Parkway and Bay Street interchange to the three destinations for inbound AM peak and outbound PM peak movements. The travel time delay functions will be calibrated to best match travel time data collected in Task 2. The travel time estimates for each destination will be shown along with the actual travel time data from the Lake Parkway and Bay Street interchange to each of the three destinations.

Deliverable: Two maps will be created, the first showing approximate inbound AM travel times from the Lake Parkway and Bay Street interchange to each of the three respective destinations. The second map shows the approximate outbound travel times from the three destinations back to the Lake Parkway and Bay Street interchange for the PM peak hour.

4. Future Traffic Projections

a. Background Traffic Growth

CONSULTANT will utilize historic traffic counts to estimate an annual traffic growth rate to apply to existing traffic volume to develop year 2030 traffic projections. The Sketch Routing Tool will be updated with 2030 daily projections to form the 2030 Baseline volumes for estimation of travel sheds.

Deliverable: Map showing future year 2030 daily traffic projections and associated annual growth rates for major roadways in the study area.

b. Generate Development Trips

CONSULTANT will estimate daily trip generation data for one of the two sets of trip generation data for areas proposed for redevelopment according to the Hoan Bridge & Harbor Redevelopment Design Sketchbook. CONSULTANT will produce daily trip generation data only for Concept B using the 8th Edition ITE Trip Generation Manual. CONSULTANT will assume full build out of the redeveloped areas will occur by the 2030 analysis year.

Deliverable: Table showing daily trip generation data for Concept B.

c. Distribute and Assign Development Trips

CONSULTANT will use trip generation data estimate in Task 4b and existing traffic count data collected in the study area to the distribute and assign the new trips generated from Concept B. The updated traffic volumes for Concept B will be incorporated into the Sketch Routing Tool to estimate travel times by roadway segment for generation of travel shed maps in Task 5.

Deliverable: One map showing daily traffic originating or destined to the redevelopment area for Concept B.

5. Future Travel Times

a. Future Baseline

CONSULTANT will develop year 2030 baseline travel time estimates for year 2030 with no modifications to Lake Parkway or redevelopment of parcels in the study area.

Deliverable: Two maps will be created, the first showing inbound AM travel times from the Lake Parkway and Bay Street interchange to each of the three respective destinations, the second showing outbound PM travel times from the three destinations back to the Lake Parkway and Bay Street interchange for 2030 baseline.

b. Future with Rebuilt Parkway

CONSULTANT will develop year 2030 travel time estimates for year 2030 with roadway modifications to Lake Parkway, but with no redevelopment of parcels in the study area. The Lake Parkway cross-section will be assumed as four-lane boulevard with roundabouts at Bay Street and Lincoln Memorial Drive.

Deliverable: Two maps will be created, the first showing inbound AM travel times from the Lake Parkway and Bay Street interchange to each of the three respective destinations, the second showing outbound PM travel times from the three destinations back to the Lake Parkway and Bay Street interchange for 2030 with a rebuilt Lake Parkway.

c. Future with Development Concept B

CONSULTANT will develop year 2030 travel time estimates for year 2030 with roadway modifications to Lake Parkway and with the proposed redevelopment of parcels in the study area consistent with Concept B. The Lake Parkway cross-section will be assumed as four-lane boulevard with signalized intersections at Bay Street and Lincoln Memorial Drive.

Deliverable: Two maps will be created, the first showing inbound AM travel times from the Lake Parkway and Bay Street intersection to each of the three respective destinations, the second showing outbound PM travel times from the three destinations back to the Lake Parkway and Bay Street intersection for 2030 with a rebuilt Lake Parkway and Concept B development.

6. Quality Assurance and Quality Control

CONSULTANT will utilize traffic quality control checklist to assure quality traffic analysis is conducted. CONSULTANT will conduct one internal quality review of analysis and results.

7. Meetings

CONSULTANT will attend one meeting to discuss methodology and data assumptions, draft findings, further refinement of process and comments on draft documentation.

8. Documentation

CONSULTANT will document methodologies, assumptions, results and conclusions of the Lake Parkway traffic analysis.

Deliverable: One draft hard copy of the Lake Parkway travel time analysis will be provided to the DEPARTMENT for review. Five hard copies of the final report will be provided to the DEPARTMENT, along with an electronic PDF of the report.

Lake Parkway Travel Time Analysis

Task	Task Description	Task	Principal	Project Ma	Traffic	Traffic Dat	Graphics	Admin Assist	
1	Project Management	771	6	26	2	2		6	42
2	Existing Data Collection	741	0	8	22	40	8	2	80
	Traffic Counts			4	14	4	4	2	28
	Travel Times			4	8	36	4		52
3	Travel Time Analysis	741	0	20	64	0	8	2	94
	Develop Sketch Routing Tool			12	32		2		46
	Develop Existing Travel Times			8	32		6	2	48
4	Future Traffic Projections	741	2	12	58	4	8	0	84
	Background Traffic Growth			4	18	4			26
	Generate Development Trips		1	4	20		4		29
	Distribute/Assign New Trips		1	4	20		4		29
5	Future Travel Times	741	3	12	60	6	12	6	99
	Future Baseline		1	4	20	2	4	2	33
	Future with Rebuilt Parkway		1	4	20	2	4	2	33
	Future with Development Concept B		1	4	20	2	4	2	33
6	Quality Assurance/Quality Control	741	2	8	8	2		2	22
7	Meetings	741	4	12	12		6	1	35
8	Documentation	748	2	12	28	4	32	6	84
			19	110	254	58	74	25	540